



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
777 Sonoma Ave., Room 325
Santa Rosa, CA 95404-4731

November 10, 2009

In response refer to:
SWR/F/SWR3:RW

Ralph A. Torres
Deputy Director
California Department of Water Resources
1416 9th Street, Room 1115-9
Sacramento, California 95814

Randal S. Livingston
Vice President, Power Generation
Pacific Gas and Electric Company
P.O. Box 770000
San Francisco, California 94177

Dear Mr. Livingston and Mr. Torres:

This letter is in regards to the development of potential actions for inclusion in a Draft Habitat Expansion Plan (HEP) as detailed in the Habitat Expansion Agreement (HEA 2007) related to several hydroelectric projects on the Feather River. NOAA's National Marine Fisheries Service (NMFS) very much appreciates the efforts of you and your staff to develop a HEP that can be successfully implemented in accordance with the provisions of the HEA. It is clear that a great deal of work has gone into identifying potential actions for inclusion in the Draft HEP. According to the HEA schedule, the Draft HEP is due to be presented to NMFS and other Signatory Parties on or before November 20, 2009.

HEA Considerations

Oroville Dam and several of Pacific Gas and Electric's hydroelectric facilities block access to what was one of the most productive and largest spring-run Chinook salmon river systems in the Central Valley. For example, Yoshiyama *et al.* (1996) states that the historic upstream limit of Chinook salmon was "six miles above Lake Almanor" on the North Fork of the Feather River. Considering the suitable habitat that would be currently accessible if passage was prescribed past the Oroville Facilities, NMFS conservatively estimated that such passage would provide a "net increase of 2,000 to 3,000 Central Valley spring-run Chinook salmon for spawning" (NMFS 2007a, at 7). However, NMFS recognized that the HEA provides potential opportunities for equal or greater benefits for target species than would be directly available under NMFS' authorities alone and entered into this alternative, cooperative approach.



The overall goal of the HEA “is to expand the amount of habitat with physical characteristics necessary to support spawning, rearing and adult holding of Spring-run and Steelhead in the Sacramento River Basin as a contribution to the conservation and recovery of these species” (HEA 2007, at 7, Section 2.1). The specific goal “is to expand spawning, rearing, and adult holding habitat sufficiently to accommodate an estimated net increase of 2,000 to 3,000 Spring-run for spawning (‘Habitat Expansion Threshold’) in the Sacramento River Basin, as compared to the habitat available under any relevant Existing Requirements or Commitments” (HEA 2007, at 7, Section 2.2).

The purpose of the HEA is in part to fully mitigate “...for any presently unmitigated impacts due to the blockage of Fish Passage of all fish species caused by the Feather River Hydroelectric Projects” (HEA 2007, at 5, Section 1.2). NMFS’ draft ‘no jeopardy’ Biological Opinion for the Oroville Facilities Project relicensing assumes that the HEA will be fulfilled and provide these commensurate benefits. Accordingly, we hope that the HEA Steering Committee is giving full consideration to actions that would result in a net expansion of habitat for spring-run Chinook salmon and steelhead as described in the HEA. For example, reintroducing spring-run Chinook salmon and steelhead to the Yuba River above Englebright Dam would expand habitat, has high potential to meet the HEA goal, and is a critical action identified in the Draft Central Valley Salmon and Steelhead Recovery Plan (NMFS 2009b).

Identification of Eligible Actions

Section 3.1 of the HEA provides that eligible habitat expansion actions must result “in a net expansion of habitat over any Existing Requirements and Commitments” of the Licensees or others (HEA 2007, at 8). Section 3.2 of the HEA provides a non-exclusive list of the types of requirements and commitments that are considered “Existing Requirements and Commitments” (HEA 2007, at 8).

The HEA Steering Committee assembled a “Working List” of potential projects, dated August 10, 2009, available for public inspection on the Internet site: www.sac-basin-hea.com. Although NMFS is not yet making any final determination on habitat expansion actions under the HEA, in order to assist in refining your assessment of potential actions, NMFS staff preliminarily reviewed the working list of potential actions and compared them against the non-exclusive list of existing requirements and commitments in HEA Section 3.2. Based on this preliminary review, NMFS staff identified certain proposed actions on Battle Creek, Clear Creek, and the lower Yuba River that we consider “existing requirements and commitments.”

Using the reference number system and action descriptors from the Working List, the actions include:

- ❑ B-1 and B-2 (phases 1&2 of Battle Creek Salmon and Steelhead Restoration Program);
- ❑ NWC-6 (Clear Creek gravel supplementation);
- ❑ NS-64 (modify ladders at Daguerre Point Dam to provide full fish passage);
- ❑ NS-65 (modify Daguerre Point Dam to improve juvenile salmonid passage);

- ❑ NS-69 (fish screen improvements at South Yuba-Brophy diversions); and
- ❑ NS-84a (rehabilitate Narrows spawning habitat).

On several occasions over the past year, NMFS staff alerted the HEA Steering Committee that the eligibility requirements under HEA Section 3 must be met when considering any potential projects under HEA. Although NMFS staff specifically alluded to these requirements in meetings on several occasions, it is not clear whether the Steering Committee is fully aware of measures contained in NMFS' Biological Opinions that affect project selection. Therefore, at this time, NMFS is providing more explicit information on contents of its Biological Opinions and other relevant information in comparison to the eligibility requirements of the HEA:

Battle Creek Salmon and Steelhead Restoration Program

All phases of the Battle Creek Salmon and Steelhead Restoration Program are part of the Reasonable and Prudent Alternative (RPA) included in the Biological Opinion (BO) on the long-term operations of the Central Valley Project (CVP) and State Water Project (SWP) (CVP-OCAP BO; NMFS 2009a). The U.S. Bureau of Reclamation has provisionally accepted the RPA. In addition, the Battle Creek Program was planned long before the HEA, and it is the subject of a long-standing, multi-party Memorandum of Understanding which committed the Parties to take action.

Clear Creek Spawning Gravel Augmentation and Channel Maintenance Flows

The RPA included in the CVP-OCAP BO contains specific actions to enhance and maintain spring-run Chinook salmon spawning habitat in Clear Creek by implementing gravel augmentation and making releases from Whiskeytown Dam sufficient to distribute spawning gravels downstream and minimize the accumulation of fine sediments in spawning areas (NMFS 2009a). Reclamation, in coordination with the Clear Creek Technical team, has committed to implementing these spawning gravel enhancement efforts.

Yuba River Spawning Gravel Augmentation and Daguerre Point Dam Fish Passage Improvements

The 2007 BO concerning the effects of the U.S. Army Corps of Engineers' (Corps) operation of Englebright and Daguerre Point Dams on the Yuba River requires the Corps to implement certain RPM to minimize take of spring-run Chinook salmon, steelhead, and green sturgeon (NMFS 2007b). These RPMs include:

1. The Corps shall develop and implement a long-term gravel augmentation program to restore quality spawning habitat below Englebright Dam.
2. The Corps shall develop and implement a long term program to replenish large woody material in the lower Yuba River.
3. The Corps shall develop and implement a plan to improve fish passage for adult and juvenile spring-run Chinook salmon, steelhead and green sturgeon at Daguerre Point Dam.
4. Until such time as reasonable and prudent measure number 3 is fully implemented, the Corps shall maintain the current fish passage facilities at Daguerre Point Dam to prevent avoidable impairment of passage of listed salmonids.

5. The Corps shall diligently pursue the ongoing effort to fully screen the South Yuba-Brophy irrigation diversion to meet all California Department of Fish and Game and NMFS fish screening criteria.

NMFS hopes this information is useful to the HEA Licensees as guidance for the development of a Habitat Expansion Plan that meets the provisions of the 2007 Habitat Expansion Agreement. For further information or assistance with the HEA Habitat Expansion Plan, please contact Mr. Rick Wantuck, NMFS Southwest Region Fisheries Bioengineering Program Supervisor, at 707-575-6063.

Sincerely,

A handwritten signature in black ink, appearing to read "S. Edmondson", followed by the initials "(fn)" in parentheses.

Steven A. Edmondson
Northern California Habitat Supervisor
Habitat Conservation Division

Cc: NMFS Long Beach Office:
Rod McInnis, Bob Hoffman, Dan Hytrek

NMFS Sacramento Office:
Diane Windham, Maria Rea, Brian Ellrott, Mike Tucker, Howard Brown,
Larry Thompson

NMFS Santa Rosa Office:
Rick Wantuck

Literature Cited

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- NMFS. 2007a. Comments, Recommended Terms and Conditions, and Modified Fishway Prescriptions for the Oroville Facilities Project. National Marine Fisheries Service, Southwest Region. February 15, 2007.
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- NMFS. 2009a. Biological Opinion and Conference Opinion on the Long-Term Operations of the Central Valley Project and State Water Project. National Marine Fisheries Service, Southwest Region. June 4, 2009.
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